

REMARKS/ARGUMENTS

Claims 1-4 and 6-37 are pending in this application. Claims 1-4 and 6-37 stand rejected under 35 U.S.C. § 112, second paragraph. Claims 1-4, 6-29 and 33-35 further stand rejected under 35 U.S.C. § 101. Claims 1-4 and 6-37 stand rejected under 35 U.S.C. § 103 as unpatentable over US Patent No. 6,317,727 to May ("May") in view of US Patent No. 5,857,176 to Ginsberg ("Ginsberg") and further in view of US Patent No. 6,014,627 to Togher et al. ("Togher"). Claims 1, 3-4, 9, 11-15, 17-18, 22-26, 29-33 and 36-37 have been amended to expedite prosecution.

Applicants respectfully request reconsideration of claims 1-4 and 6-37, as amended, in light of the following remarks.

Rejection of Claims 1-4 and 6-37 Under 35 U.S.C. § 112, ¶2

Claims 1-4 and 6-37 were rejected under 35 U.S.C. § 112, ¶2 as failing to particularly point out and distinctly claim the subject matter which Applicants regard as their invention.

The Office Action objected to the term "tenor" as vague and indefinite based on the assertion that "there are not meets and bounds to such a term." (OA ¶2). Applicants respectfully traverse this rejection. The term "tenor" is understood by those of ordinary skill in the art and is commonly defined as the "maturity of a loan," where "maturity" is defined, for example, as "for a bond, the date on which the principal is required to be repaid" and "in an interest rate swap, the date that the swap stops accruing interest." See www.mutualfunds.com/glossary (printed August 22, 2000) (attached as Exhibit A).

The Office Action rejected claims 30-32 and 36-37 as vague and indefinite because they recited a "system." (OA ¶2). These claims have been amended to recite "apparatus."

The Office Action further rejected claim 30 as vague and indefinite because it recites a database and a server, "both of which can be purely software." Claim 30 has been amended to recite "at least one media storing a database." With respect to use of the term "server," Applicants acknowledge that while such term may be used to denote a software program, it will be understood by those of ordinary skill in the art that the term "server," as used in claims 30 and 32, denotes one or more processors or computers

which provide some service to other computers directly or indirectly connected or coupled via a network. See Free On-line Dictionary of Computers (printed January 5, 2005)(attached as Exhibit A).

The Office Action rejected claim 31 as vague and indefinite because it recited a "display." Claim 31 has been amended to recite a "computer system adapted to produce" such display.

Accordingly, it is respectfully submitted that claims 1-4 and 6-37 meet the requirements of 35 U.S.C. § 112, ¶2.

Rejection of Claims 1-4, 6-29, and 33-35 under 35 U.S.C. §101

Claims 1-4, 6-29, and 33-35 were rejected under 35 U.S.C. § 101 as non statutory because "the method claims [did] not claim a technological basis." (OA ¶4). Claims 1, 3, 4, 9, 11-15, 17-19, 22-26, 29 and 33-34 have been amended to more specifically recite the non-trivial structural and functional relationships that are performed by a computer system. It will be understood that such "computer system" may comprise one or more processors and/or computers.

Accordingly, it is respectfully submitted that claims 1-4, 6-29 and 33-35 meet the requirements of 35 U.S.C. § 101.

Rejection of Claims 1-4 and 6-37 under 35 U.S.C. § 103

The Office Action rejected claims 1-4 and 6-37 under 35 U.S.C. § 103 as being obvious over May in view of Ginsberg, and further in view of Togher. (OA ¶5). Applicants respectfully traverse this rejection.

To establish a *prima facie* case of obviousness, "there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art" and the prior art references "must teach or suggest all the claim limitations." (M.P.E.P. § 706.02(j)). Applicants respectfully suggest that the Office Action fails to meet these standards.

Each of the claims of the present invention require that when a trade is made in a financial instrument having a tenor falling within bucket(x) (maturity band), the trade will effect the amount of available credit in bucket(x), and proportionally effect the

amount of available credit in other buckets (or maturity bands). Applicants' respectfully suggest that the Office Action does not clearly address this limitation.

With respect to May, the Office Action states that "[i]n May's complex method, the trade is split over multiple maturity bands (col 23 line 65-col 24 line 23,)" (OA p.5). Applicants' respectfully disagree with this assertion. Nowhere does May (including the sections cited by the Office Action) teach or suggest splitting a trade over multiple maturity bands. May's discussion of its "binary," "line binary" and "complex" method make clear that in the "complex" method, trades are not split over multiple maturity bands and such maturity bands are not coupled as claimed by Applicants. Instead, as discussed below, each maturity band limit stands alone.

In particular, the binary method is a simple yes/no determination. The line binary method "adds a further restriction of maximum maturity of any contract tradable." The complex method merely adds to the line binary method, the ability (a) to specify the amount or quantity the party is willing to trade with a co-party (May col. 24, lines 37-39), and (b) to do so for multiple maturity bands (May col. 24, lines 40-44). As discussed by Applicants in the Specification:

The [May] system provides a "complex preference interface" through which a credit administrator for the trading entity can specify for each potential counterparty, the maximum exposure for each maturity band. For example, an entity could specify that for a given counterparty, it "will do up to \$100 million out for 5 years, and then only \$50 million out from thereafter out to 10 years, and nothing thereafter." (Applicants' Specification, page 2, lines 8-13, quoting May col. 24, lines 40-44).

The credit limits for the maturity bands in May are independent. Nothing in May teaches or suggests that "a trade is split over multiple maturity bands" or that maturity bands may be coupled such that credit extended in one band will effect the amount of available credit in other maturity bands. May's "RQ" is merely a "unit of credit risk" (i.e. the "credit exposure in terms of a percentage of principle") which allows contracts to be compared. (May col. 24, lines 62-65). The credit administrator may choose to use the RQ in determining the amount of credit to be extended in each maturity band or may use any other method of determining an appropriate amount of risk. (May col. 24, lines 12-14 and 37-39).

Moreover, even assuming *arguendo*, the accuracy of the Office Action's assertion that May's trades are "split over multiple maturity bands," the relevance of the such assertion, is unclear. Presumably, the fact that the Office Action relies on Ginsberg implies that it is acknowledged that May, standing alone, does not disclose coupling maturity bands as claimed by Applicants. Accordingly, clarification is respectfully requested as to whether the Office Action is relying on May as disclosing the above-discussed claim limitation.

With respect to Ginsberg, the Office Action asserts that it would have been obvious to include (i) "coupling of a quantity of securities in maturity bands because Ginsberg teaches that portfolio analysis requires consideration of all instrument maturities;" (ii) "spanning periods because Ginsberg teaches requirements to calculate spot interest rates;" (iii) "defin[ing] the term structure of interest rates spanning a family of fixed income financial instruments because Ginsberg teaches such as required when disparate market data is utilized analysis [sic];" and (iv) "determin[ing] of the net present value for all the components of instruments ... because Ginsberg teaches such as needed to calculate an index." (OA p.6). Ginsberg teaches data processing methods and apparatus directed to the real time determination of selected fixed income indices based on a basket of securities, for use in gauging interest rate profiles (Ginsberg col. 1, lines 12-25; see also col. 3, lines 39-44). Ginsberg's teachings are inapposite for several reasons.

First, there is no motivation to combine Ginsberg's method for creating an interest rate index with either May or Togher. As to the Office Action's assertion (i) above, it is not clear whether the Office Action is referring to coupling within a maturity band or across maturity bands. In either case, Applicants suggest that the assertion that the broad concept that "portfolio analysis requires consideration of all instrument maturities" amounts to mere hindsight. There is nothing to suggest application of this broad concept to tracking the amount of credit available in multiple maturity bands.

As to assertion (ii) above, the concept of determining spot rates (i.e. the market established yield to a given maturity date) is inapposite to the tracking the amount of credit available in multiple maturity bands. Moreover, there is nothing in the art cited by the Office Action to suggest spanning of "maturity bands."

As to assertions (iii) and (iv) above, it is not understood by Applicants how such concepts are relevant or are being applied to the Applicants' claims. Clarification is therefore respectfully requested. In either case, one of ordinary skill in the art would not have been motivated (without the application of hindsight) to an index to couple credit limits in multiple maturity bonds.

Second, even if Ginsberg were applied to May and/or Togher, the combined references do not teach or disclose the claimed invention, including the limitations discussed above, nor has the Office Action set forth "the proposed modifications of the applied references necessary to arrive at the claimed subject matter." (M.P.E.P. § 706.02(j)). Specifically, the Office Action does not set forth, and none of the references teach or suggest, what specific structure or methods of Ginsberg could be used to modify May in order to arrive at the claimed subject matter.

Finally, each independent claim further recites certain limitations which are not taught or suggested in the prior art or discussed in the Office Action. For example, claim 1 recites:

using [a] computer system to recalculate said proportional draw down amount for each said bucket by implementing a function expressed as

$$M_i^{\alpha+1} = M_i^{\alpha} - (M_i^{\alpha} / M_k^{\alpha}) * X_k,$$

where $M_i^{\alpha+1}$ denotes the value of the proportional draw down for bucket i after $\alpha+1$ trades, and X_k denotes the size of the trade for bucket k.

Claim 13 recites:

using [a] computer system to set a normalized total credit (NTC) based on said initial proportional draw down for at least one said bucket;

calculating a conversion ratio CR_i to said NTC for each said bucket (i);

recalculating NTC according to the function

$$NTC^{\alpha+1} = NTC^{\alpha} - (X_k * CR_i),$$

where $NTC^{\alpha+1}$ is the NTC value after $\alpha+1$ trades, X_k is the size of the $\alpha+1$ trade and CR_i is the conversion ratio for bucket i; and

recalculating said proportional draw down for each said bucket according to the function

$$M_i^{\alpha+1} = NTC^{\alpha+1} * 1 / CR_i$$

where $M_i^{\alpha+1}$ denotes the value of the proportional draw down for bucket i after $\alpha + 1$ trades.

Claim 29 recites:

assigning a relationship to said available credit limits associated with said buckets, wherein credit extended on in connection with a trade action associated with a trade amount and a financial instrument having a tenor falling within said range of tenors for one of said buckets (the k^{th} bucket) reduces said available credit in bucket $_i$ for $i = 1$ to N in proportion to said trade amount multiplied by said initial available credit limit associated with bucket $_i$ divided by said initial available credit limit associated with said k^{th} bucket.

Claims 30 and 33 recite:

for each bucket $_i$ for $i = 1$ to N reducing said currently available credit limit in proportion to said trade amount multiplied by said initial available credit limit associated with bucket $_i$ divided by said initial available credit limit associated with said k^{th} bucket.

None of these limitations are taught or suggested by the prior art made of record, nor has the Office Action identified anything in such prior art which purports to teach or describe such steps.

Accordingly neither May, nor Ginsberg, nor Togher, alone or in combination, teach or disclose the claimed invention as recited by each of the independent claims (claims 1, 13, 29, 30 and 33). Therefore, independent claims 1, 13, 29, 30 and 33 are believed patentable over the prior art of record.

In view of the forgoing supporting remarks, Applicants respectfully request allowance of claims 1-4 and 6-37.

If the Examiner wishes to direct any questions concerning this application to the undersigned Applicants' representative, please call the number indicated below.

Respectfully submitted,

Skadden, Arps, Slate, Meagher & Flom LLP

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Exhibit A
Dictionary Definitions

to sell the securities back by a specified date, which ranges from one to 15 days. The Fed pays the dealer a rate of interest equal to the discount rate. These transactions, also called reverse repurchase agreements, decrease the money supply for temporary periods by reducing dealer's bank balances and thus excess reserves.

Matching concept

The accounting principle that requires the recognition of all costs that are associated with the generation of the revenue reported in the income statement.

Materiality

The importance of an event or information in influencing a company's stock price.

Materials requirement planning

Computer-based systems that plan backward from the production schedule to make purchases in order to manage inventory levels.

Mathematical programming

An operations research technique that solves problems in which an optimal value is sought subject to specified constraints. Mathematical programming models include linear programming, quadratic programming, and dynamic programming.

Matif SA

The futures exchange of France.

Matrix trading

Swapping bonds in order to take advantage of temporary differences in the yield spread between bonds with different ratings or different classes.

Mature

To cease to exist; to expire.

Mature economy

The economy of a nation with a stable population and slowing economic growth.

Maturity

For a bond, the date on which the principal is required to be repaid. In an interest rate swap, the date that the swap stops accruing interest.

Maturity date

Usually used for bonds. Date that the bond finishes and is paid off. Date on which the principal amount of a note, draft, acceptance, bond, or other debt instrument becomes due and payable.

Maturity factoring

Factoring arrangement that provides collection and insurance of accounts receivable.

Maturity phase

A phase of company development in which earnings continue to grow at the rate of the general economy.

Related: Three-phase DDM.

Maturity spread

The spread between any two maturity sectors of the bond market.

Maturity value

Related: par value.

Maximum capital gains mutual fund

A mutual fund whose objective is to produce capital gains by investing in small risky, rapid-growth companies.

Maximum price fluctuation

The maximum amount the contract price can change, up or down, during one trading session, as fixed by exchange rules in the contract specification. Related: limit price.

May day

The date of May 1, 1975, after which brokers were allowed to charge any brokerage commission, rather than a mandatory rate.

May expand

Used in the context of general equities. Warning that the size of the order/total may be increased. See: "more behind it."

M.B.S. depository

A book-entry depository for G.N.M.A. securities. The depository was initially operated by M.B.S.C.C. and is currently in the process of becoming a separately incorporated, participant-owned, limited-purpose trust company organized under the State of New York Banking Law.

M.B.S. servicing

The requirement that the mortgage servicer maintain payment of the full amount of contractually due principal and interest payments whether or not actually collected.

Meals and entertainment expense

A tax deduction allowed for meals and entertainment expenses incurred in the course of business.

Mean

The expected value of a random variable. Arithmetic average of a sample.

Mean of the sample

The arithmetic average; that is, the sum of the observations divided by the number of observations.

Mean return

See: expected return.

Mean-variance analysis

Evaluation of risky prospects based on the expected value and variance of possible outcomes.

Mean-variance criterion

business. Must be filed within 90 days after fiscal year end. A 10-Q report is filed quarterly.

10-Q

Quarterly report required by the S.E.C. each quarter. Provides a comprehensive overview of a company's state of business.

1040 form

The standard individual tax return form of the IRS.

1099.

A statement sent to the IRS and taxpayers by the payers of dividends and interest and by issuers of taxable original issue discount securities.

Tenor

Maturity of a loan.

Ten percent guideline

The standard analysts' principle that funded debt over 10% of the assessed valuation of taxable property for a municipality is excessive.

Term

The period of time during which a contract is in force.

Term bonds

Often referred to as bullet-maturity bonds or simply bullet bonds, bonds whose principal is payable at maturity. Related: serial bonds

Term certificate

A certificate of deposit with a longer time to maturity.

Term Fed Funds

Fed Funds sold for a period of time longer than overnight.

Term insurance

Provides a death benefit only, no build-up of cash value.

Term life insurance

A contract that provides a death benefit but no cash build-up or investment component. The premium remains constant only for a specified term of years, and the policy is usually renewable at the end of each term.

Term loan

A bank loan, typically with a floating interest rate, for a specified amount that matures in between one and ten years and requires a specified repayment schedule.

Term premiums

Excess of the yields to maturity on long-term bonds over those of short-term bonds.

Term repo

A repurchase agreement with a term of more than one day.

Term structure of interest rates

Relationship between interest rates on bonds of different maturities usually depicted in the form of a graph often called a yield curve. Harvey shows that inverted term structures (long rates below short rates) have preceded every recession over the past 30 years.

Term to maturity

The time remaining on a bond's life, or the date on which the debt will cease to exist and the borrower will have completely paid off the amount borrowed. See: Maturity.

Term trust

A closed-end fund that has a fixed termination or maturity date.

Terminal value

The value of a bond at maturity, typically its par value, or the value of an asset (or an entire firm) on some specified future valuation date. Usually, a perpetuity formula is used. For example, suppose we forecast cash flows through year 10. We make an assumption that year 11 and beyond will be no growth (except for inflation). If the cash flow forecast for year 11 is 100, the firm's discount rate is 12% and inflation is expected to be 2%, then we use the formula $V_{10} = CF_{11} / (\text{disc rate} - \text{inflation})$. Hence, the value is $100 / (.12 - .02)$ which is 1,000. This cash flow needs to be brought back to present value using the formula $1000 / (1.12)^{10}$ which is 321.97. Note the importance of the inflation assumption.

Terms of sale

Conditions on which a firm proposes to sell its goods or services for cash or credit.

Terms of trade

The weighted average of a nation's export prices relative to its import prices.

Test

The event of a price movement that approaches a support level or a resistance level established earlier by the market. A test is passed if prices do not go below the support or resistance level, and the test is failed if prices go on to new lows or highs.

Testamentary trust


A trust created by a will, after death.

Theoretical futures price

Also called the fair price, the equilibrium futures price.

Theoretical spot rate curve

A curve derived from theoretical considerations as applied to the yields of actually traded Treasury debt securities because there are no zero-coupon Treasury debt issues with a maturity greater than one year. Like the yield curve, this is a graphical depiction of the term structure of interest rates.

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server

1. A program which provides some service to other (client) programs. The connection between client and server is normally by means of message passing, often over a network, and uses some protocol to encode the client's requests and the server's responses. The server may run continuously (as a daemon), waiting for requests to arrive or it may be invoked by some higher level daemon which controls a number of specific servers (inetd on Unix). There are many servers associated with the Internet, such as those for Network File System, Network Information Service (NIS), Domain Name System (DNS), FTP, news, finger, Network Time Protocol. On Unix, a long list can be found in /etc/services or in the NIS database "services". See client-server.
2. A computer which provides some service for other computers connected to it via a network. The most common example is a file server which has a local disk and services requests from remote clients to read and write files on that disk, often using Sun's Network File System (NFS) protocol or Novell Netware on IBM PCs.

(1996-09-08)

Previous: Serial Presence Detect, serial processing, Serial Storage Architecture, serve, servelet
Next: serverlet, Server Message Block, server-parsed HTML, server room

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